VANTARI
NEWSLETTER

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News for Atari enthusiasts everywhere

Vantari celebrates fourth anniversary this month

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* NAMM EXCLUSIVE REPORT

ATARI ONCE AGAIN
THE COMPUTER OF CHOICE

From ZNET ONLINE

Eyewitness Report by John Nagy

The National Association of Music Merchants show (NAMM) is a lot like a visit to the Twilight Zone... a peculiar mixture of tight leather and Brooks Brothers Suits... just what you would expect to see at the corner of New York's Wall Street and Los Angeles' Sunset Boulevard. You quickly pick up the protocols, though: don't stare at the pink hair.

Apparently it is more acceptable to stare at the women in the revealing outfits that are plentiful both in the exhibits and in the audience.

NAMM, the "international music market", is where music dealers, performers, integrators, manufacturers, etc., meet each year to set the agenda for the coming sales months. Everything musical is here, from banjo string companies through to the million dollar studio mix consoles. It draws big name performers both to see what the industry has new to offer and to support various companies with their endorsements and performances. The crowd is a wild mix of users and business persons sporting the full range of tattered levis and torn tie-died T-shirts with a safety pin in their nose up through immaculate 3- piece suits. And of course, music is coming at you from everywhere.

This year's Winter NAMM is no different. Held in the Anaheim Convention Center next door to Disneyland January 19-21, it had close to a thousand exhibitors and maybe 100,000 visitors and sprawled into the Hilton and Towers and Marriott hotel convention facilities. There areliterally miles of isles. It is a CES of music. In the midst of this, a 54' banner hung over the central snack bar, announcing "BEYOND MIDI - THE NEXT GENERATION FROM ATARI". A two room suite above the main floor beckons to show goers and offering a private meeting lobby and a completely outfitted recording studio.

Atari brought nearly 20 STACY laptop ST machines to NAMM, and 10 of them went directly to the floor display of DR. T, a leader in MIDI software.

Others were on display in the Atari lobby, and one was controlling sounds in the Atari studio next door. On hand for Atari were Donny Osmond, Jimmy Hotz, and Mick Fleetwood, who are also associated with a small Atari quarterly project called MIDI MAGAZINE. Hotz and Fleetwood are also involved in a project that many

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The Vantari Newsletter

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VANTARI MEETINGS

Vantari meets on the second wednesday of each month at the Hastings Community Centre, 3096 E. Hastings St. from 7:00pm until 10:00pm. Visitors are welcome to attend a meeting to decide on membership. Come in and meet us!

ADVERTISING RATES AND POLICIES

Advertising must conform to our family publication standards. Ads must be camera-ready copy sized according to advertising rates listed. Non-conforming sizes must pay rate of next larger size. Mail your ads to the editor with a cheque to cover the listed rates, your ad will appear in the next issue. Discounts are available for continual running ads, phone editor for details. Deadlines for ads are the fifteenth day of each month.

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Members receive free classified ads for computer related items in the following catagories: Swap, Wanted, or For Sale (as space permits.) Claims made within ads are the sole responsibility of the advertiser.

From the Editor

Don Hatch

Wanted, 8-Bit articles, discussions, comments or whatever you can contribute that will benefit Atari 8-Bit users. The 8-Bit users must band together in order to keep support going for their computers. I would like to see more input to both our Newsletter and the general meeting for our 8-bit users. If you really care, then please join in. Vantari is probably the last place in our area where users can come for continued support and discussion by those who are truly interested in the 8-bit machines.

News Shorts

The producers of the popular online news magazine called Z-Net have stopped using the LZH file archiving method. The reason given was that their 8-bit followers had no way to unarc that file format. They will continue to use the older .arc file format that is available for unarcing on the 8-bit computers. News is that Jay Crosby who used to work with Sig Hartmann at Atari in Sunnyvale is moving up the coast to work as a programmer with Migraph. That is Migraph who's top selling programs include Easy Draw, Touch Up, and the Hand Scanner. Also word comes that Migraph will soon be working on a new graphics publication package that will be shown this spring. Watch for this one - it's bound to be a good one. Watch also for a new magazine to hit the newsstands probably in April. The title is ST Journal and it will be patterned after some of the better selling PC style mags. It has been reported to have an impressive list of contributing authors but the first edition will only be 10,000. The current issue of Portable Computer has a four page spread on the Atari Portfolio hand held computer. It is shown on the cover behind a laptop but it is in the closed position and not really recognizable. A recent press release stated that Atari is changing advertising agencies to Bob Thomas and Associates. They will be doing public relations and media, with advertising managed through CHIAT/DAY/MOJO, a very large firm considered to be a superior agency. Atari says it needed a larger firm to be able to handle the growth and marketing approaches that will encompass a wide line of computers. The new agency even has an office in Toronto. I finally received official word from LFP Publications, ST-Log and Analog are no longer published. I only hope their writers surface in other Atari magazines. -30-

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from ZNET ONLINE

* EDIT YOUR DESKTOP.INF FILE FROM THE Z*NET BBS

by Richard Guadagno

How to edit your DESKTOP.INF file.

If you want to edit your DESKTOP.INF file, the first thing you must dois load the DESKTOP.INF file into a Text Editor, or Word Processor. If you own FLASH from Antic, use it's BUFFER window. FLASH has great editing features. Once you have the file loaded you must decide what you want edited. 1. If you want to edit the name of your TRASH CAN, look for the following line. #T 04 07 02 FF TRASH CAN· · Place your cursor on the · symbol. Then carefully use the [BACKSPACE] key to delete the name. Then just type ANY name up to 9 characters, you want to appear under your TRASH CAN Icon. 2. If you want your 'Installed Programs' to be executed from a folder, or if you want to install more files. Look for this line. (or one like it)

#G 03 04 A:\ARCSHL21.PRG· .ARC·

#G 03 04 A:\ARCSHL21.PRG·.LZH·

Simply edit the line by inserting the folder name. Be sure to use the backslash '\' like this:

A:\FOLDER\FILE.NAME·

Make sure you do not delete the · characters. While you are doing this you can easily add more file extenders. Just copy the lines exactly. The line that starts with #G is for GEM programs.(PRG, APP) The line that starts with #F is for TOS programs.(TOS) The line that starts with #P is for TTP programs.(TTP)

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from CPU NEWSWIRE ONLINE MAGAZINE

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Sayin it like'it is....

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Los Angeles, CA.

* MAC LAPTOP CHOKES ON MIDI SW! * By the the you read this, the 50,000 piece order of Mac Laptops should have reached Cupertino or should I say the CANCELLATION of that order and the notice thereof WILL have reached Cupertino. It seems a certain alert individual asked that a program or two be shown on the MAC LAPTOP at NAMM, thus placing the Mac rep in the hot seat, he exclaimed that there was a problem in the circuit design that would not allow midi software to run using the laptop... The individual who asked to see the software run was given a Cross Pen and Pencil set by the grateful folks from the music house who had ordered 50,000 laptops. They are currently looking very carefully at the Stacy Midi controller. Yep, thats the name folks and its claim to fame is it is the only laptop midi-controller in the industry with 2-4mb of power ram available for the musicians.

thought had died off... the ATARI/ HOTZ MIDI TRANSLATOR.

The keyless keyboard of the Hotz box was central stage at the Atari studio. This is said to be a real production version of the first model HOTZ box to be commercially available. All that was lacking on this one was the silk-screening on the back to identify the ports, and discussion overheard at the show indicated that some internal bracing should be beefed up, but what we saw, touched, even played with at NAMM will be shipping very shortly. This particular unit was used in the latest FLEETWOOD MAC LP and would be heading back into the real recording studio for more work as soon as NAMM was over. Whatz a Hotz? Well, it is sorta like a keyboard, but there are no moving pieces. The play surface is hard plastic, with no apparent give. Ridges and colors mark off different zones and rows of places to touch, but no marking are on any. The concept seems to be that you decide what does what. The box is an input device, but the heart of the HOTZ is the software. This program controls the ranges and harmonies available at any given time to match that of whatever music you are playing with. Set up properly, any child will be able to use the device and make/add pleasing music, playing with standard CD records. Encoded on the CD will be a few inaudible electronic bursts that tell the Hotz what to do when to keep things in tune. NO, it's NOT a "player piano" idea at all. You can choose the instrument and depth of chords, and choose the timing and notes to play. Hotz just makes sure the harmonies match and the notes are in the right chord structure. The result is that any improvisation, any guitar solo, anything you can imagine (hear) in your head, you can play without the usual "clashes" of mistakes. In the studio, the input parameters would be keyed in before performance, with the same result. Perfect keying on solos and fills, with the musician free to create mood, depth, and accent. Musicians are by and large VERY interested in the Atari/Hotz device. It can be ordered NOW for a mere $7,000 by calling Atari at 408-745-4966. A consumer version is to be announced later in the year.

The STACY drew plenty of attention as well, plugged into the MIDI setup and controlling the remarkable music that Hotz and Fleetwood demonstrated for small groups of visitors throughout the show.

The other star of the MIDI studio was an audio-visual setup at the far end of the room. With it, Scott Gershin of SOUNDELUX showed how he did the sound and music for the Golden Globe Award winning movie "BORN ON THE FOURTH OF JULY" starring Tom Cruise. Scott did the sound for the blockbuster film using ATARI and MIDI equipment. To demonstrate, Scott showed us a raw edit of part of the movie with all the original sound recorded at the time. Although the visuals were great, the sound was horrid. Scott started tweaking, "sweetening", and adding sound effects. The Atari's whirred, and Scott described how Tom Cruise re-dubbed the lines for later insertion. In minutes, we viewed the same clip with fabulous stereo sound, stirring music, and clean clear voices and effects. Then Scott popped a cart out of the Atari Megafile 44 removable media hard drive and said, "Everything you just heard came off this drive. I can non-destructively re-edit, extend, move any part of it as many times as I want with no degradation in the digital quality sound." He said his full set of sound files for "BORN ON THE FOURTH" run a total of nearly 55 GIGABYTES of data, almost impossible to handle before the removable media made it easy. About four minutes of full- sample finished stereo mix audio can be held on each 44 megabyte cartridge. Scott says it is the commercial sound media of the future. SoundDelux can be reached at 7060 Hollywood Blvd, Suite 711, Hollywood, CA 90028, (213) 463-3855.

Another neat discovery in the Atari Studio was the SYSTEM SOLUTIONS modified MEGA machines. They are rack-mountable and a sexy BLACK color (even the mouse!) to better travel with road musicians. The MST2-RACK (2 meg) runs $2299, $2999 for the MST4-RACK. Rackable hard drives and monitor equipment is also available. Contact Henry Bahr at System Solutions, PO Box 433, West Chicago, Illinois 60185, or call (708) 690- 0930.

Visitors to the Atari lobby found plenty of good literature, informed people (including Jay Crosby, Frank Foster, Wayne Smith, Bob Brodie, Diane Goralchec, Charles Cherry, and John King Tarpinian), and a stack of PORTFOLIOS. But the item that was the biggest disruption to progress was undoubtedly the pair of LYNX games that absolutely everyone HAD to get their hands on.

Atari's booth looked pretty good, considering the machines and supplies needed to assemble it barely made it to the show. Workers and volunteers from Orange County Atari User Groups arranged to have three days to set up... one more than anyone thought would be needed. Well, the equipment was mixed up and sent to the wrong airport, arriving two days late. Yikes. Long and hard work paid off with a good display, and Atari rewarded volunteers with Portfolios and even a pair of MEGA 4 computers for their outstanding efforts.

The Atari exhibit did not draw the traffic that it might have on the main floor, but that was a trade off for privacy and ability to let the demos really scream. Some visitors were put off by the relatively "off limits looking" entrance door and stairs up to the booth, thinking that this was for employees or by invitation, despite the large ATARI sign above it. On the other hand, no one that came to the show LOOKING for Atari (lots!) would have missed it, and Atari had plenty of floor exposure in third party booths. This is one major show

booths. This is one major show where the AVERAGE person knows who/what/why ATARI is about.

What about the "other" computer companies? Well, it turns out that COMMODORE did in fact sneak a last minute booth into the show, but it was at the furthest corner of the furthest hall... and was largely boring. One Amiga was running some sort of sequencer (in color of course) but most of the display had nothing to do with MIDI or music. As a result, few attendees had time for browsing there. NO OTHER computer maker was there at all.

Friday night's concert was also delayed by the equipment foul up, but went on as planned, featuring the members of the band CREAM at the Disneyland Hotel. Now called the JACK BRUCE BAND, they played after the MICHEAL SHRIEVE BAND (including POLICE guitarist Dave Torn). Frankly, most of the Atari people were so worn out from the hectic day, no one we talked to stayed for the whole concert! Lots of music industry people did, though, and seemed to be very happy with the performances. The concert was co-sponsored by MUSICIAN MAGAZINE.

European music magazines are said to be "fighting" over who will get to co-sponsor a concert and presentation with Atari at the upcoming Frankfort Show. Sort of a German NAMM, it is the continent's most prestigious music event of the year. We'll keep you posted as we find out more.

We already know that ATARI will be sponsoring the 24th anniversary WORLD TOUR of Fleetwood Mac, and Atari's Frank Foster will be going along on part of that tour. The largest tour ever for the band, it will begin in March in Australia. Atari will be the technology provider, and Frank will go along to conduct seminars and "grassroots" level support for the MIDI market of Atari. The HOTZ box will be a key part of the musical support Fleetwood Mac will use on tour.

There was lots more to NAMM... more than one week's worth of news. So next week, Z*Net will tell you about the MIDI developers meeting and some exciting details about MIDI-TASKING. Yes, as we exclusively reported 2 weeks ago, Atari did show their endorsed multitasking system to developers. It looks -REAL GOOD- and we'll tell you what we can about it next week. Suffice to say for now, this system is REAL and can be ready to ship to consumers in the next 3-6 months. It is expected to be part of a bundle of MIDI software, including a HOTZ startup package, to be included with the STACY laptop ST... which should start shipping to dealers by February 1! [Note: Pictures of the Atari booth and a number of the people and products mentioned in this article are available in the GEnie, Compuserve, and BBS libraries. They were made using the VIDI-ST digitizer and can be viewed with any DEGAS compatible picture viewer. Z*Net is proud to be able to continue our tradition of not just telling the news, but actually SHOWING it to you!]

TIMESCANNER

an ST Review by R. Lussier

Timescanner is a great pinball type game with very good graphics and sound. The game is based on you being sucked into a time warp and dumped into an odd place, a pinball type of world. There are four challenges to beat before you can leave this land. This is a one or two player game and you can also use the mouse or the keyboard to control the gam. The scenes of the tables go from a volcanic background that erupts you to another level when you spell out VOLCANO. You are then sent to an Egyptian style of level. You have the use of four or more flippers depending on the level, also a nudge and tilt feature. Once the tables are complete you are then transported to the final level which is a variation of the famous 'BREAK-OUT' type game. If successful in this level, you gain your freedom. All in all a very good effort by Activision. If you are into pinball type games this should be in your collection. I rate it at 80% for graphics, sound and longevity. Don't forget to support your suppliers and also your Users groups, your machines depend on them! Enjoy, till later ....

from Z*NET ONLINE

Z*NET NEWSWIRE

ATARI NEWS FIRST

MICHTRON OFFERING ST-FAX:

Major Atari ST software and hardware maker MICHTRON of Michigan will be releasing the FAST FAX MODEM for the ST line in the next month. Only two weeks away is the AMIGA version, and Tim Purves of Michtron is now finishing the ST software. To sell at $699, the modem will allow all standard FAX sending and receiving, with the resulting intake file viewable on screen or printer. The FAST FAX was first shown last year at the April COMDEX in Chicago. It was expected that special interfacing in the software would enable full images of pages to be developed in FLEET STREET PUBLISHER and sent as FAXes without ever requiring local printing. This feature may be included either at first or a later upgrade. Meanwhile, FLEET STREET PUBLISHER V 3.0 is also only weeks away from release.

UIS: The Universal Item Selector, version 3 is available now. Ads should be beginning shortly. Read your favorite Atari hard-copy publication for the ad.

BRODERBUND TOP SELLING SOFTWARE OF 1989: Where in Time is Carmen Sandiego?, the newest program in Broderbund Software's award-winning Carmen Sandiego software series, was the best- selling disk-based entertainment software during the 1989 holiday season, according to software distributors and retailers nationwide. Since the introduction in August 1989, resellers have reported sales of more than 100,000 copies of the program.

APPLE ASKS JUDGE TO DISMISS XEROX SUIT: Apple Computer denying it copied Xerox Corp. software in its Macintosh and Lisa computers, asked a federal judge on January 5th to dismiss a $150 million copyright fraud lawsuit filed by Xerox. Apple denied it had gained "unauthorized access" to Xerox secrets by hiring several key Xerox employees in the 1980s. Apple also charged Xerox waited too long to file its suit and gave up any rights to its software. Xerox claims the suit is brought about by fraud.

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from ZMagazine Issue #182

8-BIT DOS - CONFUSED? by Elliott Coerper, Korea - Nov. 1989

Atari DOS, MYDOS, SmartDOS, SpartaDOS, SuperDOS, TOP DOS, DOS XE... good night, what DOS am I suppose to use? When I bought my 800 XL and 1050 they came with Atari DOS 3. I suffered with it for three months, then a friend gave me her copy of SmartDOS (I thought I had died and gone to heaven!). Although Atari DOS 2.0 and 2.5 are the only DOSes many people will ever need, there are several DOSes that outperform them. By using the proper DOS, like having a finely tuned car, it accelerates you into new found areas of enjoyment. So, if you are looking for more out of your DOS, then follow us as we test drive 6 different ones. MYDOS 4.5 Simple, easy, menu driven and a pleasure to use. This is what DOS XE should have been. It is completely compatible with Atari DOS 2 and has full READ capabilities with DOS 2.5. However, it only writes to the first 720 sectors of DOS 2.5. Reading a disk is easy, just use the standard (A) prompt or touch the number corresponding to the drive you want. The RAM disk handler is very versatile, handling upgrades of up to 1 megabyte. MYDOS also has the capability to create and delete subdirectories at will. It even contains extensive documentation on disk! If I haven't sold you yet, then try this on for size, MYDOS is a Public Domain DOS! About the only drawback I see (for some people) is that it is not compatible with SpartaDOS, OS/A+ version 4 format or DOS XE. All things considered, (price, ease of use, performance), MYDOS is one of, if not the BEST, DOSes available for Atari. SmartDOS 8.2D Although one of the first true double density DOSes, SmartDOS still stands among the best DOSes ever written for Atari. Originally packaged with Astra Disk Drives, it is no longer available commercially. SmartDOS is menu driven, like Atari DOS 2, but with several noticeable differences. A status line above the menu indicates what drives are active, whether they are single or double density and the amount of free memory available. Also available are sector copying, bad sector testing, on/off write verify, speed check and drive reconfiguration (single or double density). And if you are willing to sacrifice the memory, you can have SmartDOS resident. Using the RAM Disk creator from Jonesware makes this DOS almost perfect. The only thing missing is the ability to make sub directories. If you can find a copy of it, pick it up! SpartaDOS Heralded as the primer DOS for Atari, SpartaDOS is probably the most powerful DOS on the market. It is command driven and allows for batch processing. The ability to make multiple subdirectories, date/time stamping and unerase are only a few of the many options available. However, with so much power, there is a price to pay. You cannot master this DOS in an hour like many of the DOSes available. SpartaDOS is not for the timid but for the serious Atari user. If you plan on using it, plan on spending the rest of your life learning it's almost endless options. For very serious Atarians, nothing can beat the speed and versatility of SpartaDOS X (a piggy back cart version of this DOS). Graphic Operating Systems (GOS) Currently there are two versions on the market, Diamond DOS from Reeve Software and GOE from Total Control Systems. Not having a copy of GOE, I cannot comment about it. However, if their cart version is anything like their demo version, then it should be an excellent product. First, I believe the disk version in entirely too slow and a waste of money. While trying to duplicate a disk from drive "A" to drive "B" I was able to run to the market and back, peddle three miles on my exercycle, and do half of my Martial Arts workout before it was finished. If you have ever seen an Atari ST, Commodore Amiga, Apple Macintosh or GEOS on the Commodore 8 bit systems (available over two years ago), then you have an idea of what this system looks like. The graphic operating system is an easy to learn operating environment with icons, windows, pull down menus, dialogue boxes and a arrow pointer (mouse). A few of the many options are: date/time stamping, exiting to basic (type DOS to return), compatibility with most DOSes (the cart version states it is compatible with all), tagging files and outstanding memory expansion support. If you are looking for the graphics operating system on your 8 Bit, then this is the way to go. If money is no object, I strongly recommend the Diamond DOS cart used in conjunction with SpartaDOS X. DOS XE For some reason I really wanted to like this DOS. I wanted to believe Atari still liked and cared about the 8 bit community. I wanted to believe Atari still had the capability of bring out a strong and useful software product for us 8 bitters, however..... DOS XE is functional, it is better then DOS 3 (by just a bit), but it falls tremendously short of the mark. Atari did it again, they made another DOS that is a pain in the neck to use. Four key strokes instead of one to get a disk directory! Just like DOS 3 there are problems reading DOS 2.X files. An elaborate disk swapping routine must be accomplished prior to reading a DOS 2.X file. The only positive point about this DOS is that it takes advantage of the 551's capabilities. However, if you have a 810 or a 1050, don't waste the money. Even at $9.95 (very reasonable) it is not worth the aggravation. ATARI DOS 3 Unfortunately many Atarians had this DOS dumped on them when they purchased a 1050. This DOS successfully takes the fun out of owning an Atari. Serious design flaws prevent any practical applications. Whether it's the wasteful file management system or its inability to read DOS 2 files, DOS 3 spells "Garbage DOS". Well there you have it, a brief glance at six different DOSes. By no means was this a complete evaluation of each DOS nor are these the only DOSes available. By owning an Atari 8 bit computer, you can be a charter member of "The DOS of the Month Club". Good luck, and don't forget to talk up Atari computers!

from ZNET ONLINE

* ATARI STE/TOS 1.6 FIRST IMPRESSIONS

by Darek Mihocka, Branch Always Software. (C)1990.

It's finally here. Atari kept its promise of shipping the STe before the end of the year, although they didn't quite keep their original promise of shipping in October. All other developers that I've contacted are still waiting for Atari to ship them their machines, and I'm told the STe has yet to make its appearance in the U.S. They are plentiful here in Canada, having arrived a few days after Christmas. According to Atari Canada, the list price of the STe is $1100 (Canadian) which is $900 and change in US dollars. You wouldn't know it based on the prices that stores here in the Toronto area are selling them for. Try $699 (Canadian), almost 40% off the list price, which is barely higher than what a 520STFM costs, and less than what most stores sell the 1040ST for (although the prices are starting to come down fast). Although I had sworn to never again buy another Atari computer, I'm not going to pass up a bargain. With the money I can get for my old 1040ST, this machine hardly cost me anything, and I don't even have to pay for the TOS and blitter upgrade! So, what's inside the cardboard box? If it wasn't for the very tiny letters on the label, you'd think you were opening up a 1040STFM box. The computer itself looks identical to a 1040STFM, except for the extra joystick ports on the left side of the keyboard and the two audio jacks on the back. Yes, the mouse still plugs in underneath the keyboard. Arghhh! When the machine boots up, the desktop looks just as it always has. Clicking on Desktop Info produces the same Rainbow TOS display as TOS 1.4, except that the actual version of TOS in the STe is TOS 1.6, with a date of July 29, 1989. Already I ran into a bug. It seems that in color, the machine always boots up in low resolution, regardless of whether you saved a desktop in low rez or medium rez. This can be quite annoying. One way to get around this I found is to autorun a medium rez program like Flash. I've already been told that a patch program will be out from Atari in a matter of days to fix this bug. Another bug I found is that every once in a while if I click on a .PRG file, I get the Show Print Cancel box. If I click Cancel and click on the file again, it usually loads fine, although earlier today, I had to click on FLASH.PRG about 6 times before it finally loaded. I have had this problem happen on earlier versions of TOS, but very rarely. On the STe it happens quite often and is a bit bothersome. Let's hope a patch for this comes out soon too. I'm told the TOS 1.4 patch programs to fix bugs in TOS 1.4 will also work on TOS 1.6, but I haven't verified this. Maybe I should just wait till the pirates release fixed up versions of TOS 1.6, as they did with TOS 1.4. Since there is so much free space on the ROMs now, there is a lot of room to add in extra patches. Fortunately, I use monochrome most of the time, and the low rez bug won't bother me too much. But before switching over to monochrome, I tried the new Control Panel that the Atari STe addendum mentions. Tilt! I lose! It seems Atari is shipping the old 512 color Control Panel with the STe. I had to go in with a debugger and manually poke into the color registers to try out the new colors. Yes, they do support 16 grey levels of red, green, and blue for a total of 4096 possible colors. To achieve the 4 bits of brightness per color, the unused bit in each nibble of each color register hold the 4th bit. This new bit is the LSB, so it has a minimal effect. Old ST software which uses only 8 brightness levels, formerly 0 thru 7, will now actually be using levels 0,2,4,6,8,10,12, and 14. This is pretty well fully compatible with all existing color software. That raises a question. Will we see a Spectrum 4096 program soon? I don't know what Trio Engineering has planned, but based on what I know about the Spectrum file format, all of the display programs out there will support 4096 colors as is. It is simply a matter of modifying the Spectrum or Unispec programs, or any number of Amiga to Spectrum conversion programs to generate 4096 color files. I'm sure that video digitizer software will be upgraded to support the 16 grey levels. VIDI-ST currently tries to emulate 16 grey levels but it still looks bad. Hmmm, I think just editing the color palette files on the VIDI-ST disk should allow me to do that myself. Ok, never mind. I tried out the RF modulator. One of the things that really bugs me about my 1040ST is that it doesn't have an RF modulator or composite video output, even though the original 1040ST manuals all said that they do! Anyway, I plugged the RF output into the RF jack of a Sony KV-1331 television, and the display was quite good. Even in medium resolution, 80 columns was readable, although I wouldn't recommend it for long periods of time. Low resolution was excellent and certainly if all you plan to do is play video games, save yourself the $400 cost of a color monitor and just use a color TV. After I switched to monochrome, I started to test out various programs for TOS 1.6 compatibility. I'm happy to say that Quick ST and all of the Quick Utilities ran just fine. All other programs I tried also worked fine, except for the ones mentioned a bit later. Quick Index reported that TOS 1.6 was installed, and gave speed indexes similar to that of TOS 1.4. GEM drawing speed was about 5% to 10% faster, while BIOS was about 1% slower. So with the debugger again, I took a look inside TOS 1.6. It seems that Atari may be planning a 68020 or 68030 upgrade for the STe. The ROMs are coded to be compatible with any 680x0 chip. That is, they support both the 6 byte exception stack frame of the 68000, and the 8 byte frame found in the 68010/20/30. Hooray! TOS 1.6 should run unmodified on a 68030. I hope somebody at Atari has tested this. The 1% slowdown in BIOS is probably a result of the extra lines of code required to test a new OS variable —longframe at $59E, which indicates whether a 6 or 8 byte frame is being used. A quick look at the trap #1 handler gives a good idea of how to write CPU independent interrupt handlers, which should also run on the TT. Also changed are line F calls. There are none! This means that TOS is slightly larger than before, but could also be faster. This could be why GEM is so much faster. Even Quick ST speeds up by about 10%. But TOS no longer fits into 192K. The ROMs have been relocated from $FC0000 to $E00000. The OS variable —sysbase at $4F2 points to the start of the ROMs, and programs (such as UIS II or DC Showit) that assume that the ROMs are always at $FC0000 will fail to run unless patched for the new location. In fact, trying to access the old memory locations will generate a bus error and crash the system. TOS now uses 256K, of which only about 200K is actually code and the rest is empty. Another problem with the removal of line F calls is that certain programs that depended on hooking the line F vector will not run properly, such as Hotwire. Although Hotwire still runs if double clicked from the desktop, the Codeheads tell me that it will not be possible to install it as an AUTO folder program or use the hotkey feature until they fix up Hotwire for TOS 1.6. A patch program is required in any case, and I'm told it may already be out by the time I upload this file. Other TOS version dependent programs may also fail under TOS 1.6, and may required either patches or upgrades. While on the subject of compatibility, my dealer tells me that Populous doesn't run on the STe. Too bad, how sad. (I'm not a big fan of video games as you can tell). Otherwise, everything else I tried ran fine on the STe, if not faster. The STe has a built in blitter chip, which is a big plus for all the 1040ST owners like myself who have been waiting for 4 years for Atari to deliver the blitter upgrade they promised when the 1040ST was first released. Software accelerators will still provide a bigger speed increase than the blitter, but heck, if it's free, take it. I took the patch cords from the back of my tape desk and plugged them into the left and right audio jacks on the back of the STe. Sure enough, the keyclicks as I'm typing this now are coming out both channels of my stereo. Reminds me of the old Atari 800 days when I did the same. So what about this new digital stereo sound? Well, since Atari has not yet shipped any documentation for the new hardware, I took out the debugger again and just scanned upper memory for new undocumented hardware registers. I found the blitter chip at $FF8A00, and sandwiched in between the sound chip and blitter chip, at $FF8900, was the new digital sound chip. All I had to go on was a recent magazine article which said what the new hardware is supposed to do. So, knowing what to look for and after several hours of poking around, I finally got it to play digitized sound files (such as the SATAN.SND (the Church Lady) file downloaded from GEnie). Here's the scoop on

the hardware... $FF8901 - this is the location that starts a sound. bit 0 = store a 1 to start playing, 0 to stop bit 1 = a 1 in this bit will keep playing the sound over and over again while a 0 only plays it once bits 2 and 3 - they do something, but I don't know what! bits 4 thru 7 - seem to be unused $FF8903, $FF8905, $FF8907 - similar to the video chip, this is a 24 bit starting address of the sound sample. High, medium, and low bytes. $FF8909, $FF890B, $FF890D - again, as with the video chip, this location gives you the current byte that the chip is processing. This is a read only location. $FF890F, $FF8911, $FF8913 - this is the 24 bit ending address of the sample. Note that both the starting and ending address must be even, and be in the range $000000 to $3FFFFE. If you store larger numbers, the upper bits are just ignored. $FF8920 or $FF8921 - this controls the speed of the sampling, as well as the mode (stereo or mono). According to the article, you are limited to only 4 speeds - 50 kHz, 25kHz, 12.5 kHz, and 6.25 kHz, and sure enough, thats what I got. bits 1 and 0 - this selects the playback speed of the sound samples. 0 is slowest, 3 is fastest. bit 8 = store a 1 to play mono and 0 to play stereo. $8924 or $8925 - these two locations just seem to act as RAM. Can't figure them out. So how does one use the chip? First, you load a sound sample into memory. It can either be a standard .SND file, which simply contains a stream of 8-bit sound samples, or a stereo file (which I guess don't exist yet except for the ones I've created) which contains a stream of alternating left and right channel samples. Then you store the starting and ending location of this sound sample into the above hardware registers, select a playback speed and mode, and poke $FF into $FF8901 to have it play over and over again. Some sound files may have to be slightly modified, depending on whether the sound samples are signed or unsigned 8-bit numbers. The sound is played using DMA, so it takes absolutely no time away from the 68000 and allows other programs to play in the background. I modified the SATAN.SND file so that it is in stereo, with the right channel being several seconds behind the left channel. Then I stuff that into the AUTO folder with a small TSR to load the sound sample and start playing it, and off it goes, saying "Could it be.. Satan?" over and over again. Yes, it gets boring after a while, but it does show quite a potential for new multimedia software products. The sound quality is much better than that of the currently available sound players which try to play .SND files through the monitor speaker. 8-bit sound is roughly the same quality as AM radio, except the frequency response can be much higher if you sample faster. I took our home-built 12-bit audio sampler and was able to play back files easily. The only drawback of using a 12-bit or 16-bit sampler is that the raw sound file will contain 16 bit samples, so when played back in stereo mode, the left channel will play back the sound, and the right channel will have garbage. But it is easy enough to convert from one format to the other. On to video! The new video hardware contains two new registers which reminds me a lot of the Atari 800 video hardware. The screen memory position is now a full 24-bit address. Video memory can be relocated anywhere with in the 16 megabyte address space of the STe, and even wraps around at $FFFFFE The locations $FF8201, $FF8203, and $FF820D make up the 24 bits. The starting location can be any even address, which allows for "fine scrolling" of 16 pixels at a time. The other new register is $FF820F, which tells it how many words to skip at the end of a scan line. Normally set to $00, you can store any value up to $FF into this register, and create a virtual screen that much bigger. For example, storing a value of $28 in monochrome will shrink the screen down to half its height. What purpose does this register have? Well, in the good old Atari 800 days, techniques such as this were available with display lists, and it allowed for smooth screen scrolling in all directions, without having to actually move any memory. This allowed for some very smooth and fast video games (Eastern Front is a good example). One non-video game application that I see is a large screen emulator. Currently there is a p/d program available called BIGSCREEN, which allows a 640x400 monitor to emulate, for example, a 1280x960 Moniterm monitor. The drawback of this software so far has been that the window scrolling had to be done totally in software by copying large amounts of screen memory every second. When running BIGSCREEN all programs run about 30% slower and not as smoothly. On the STe, this can all be done in hardware with no speed loss. Look for this feature in the next release of Quick ST. A few more comments about the machine in general. The power supply seems to get a lot hotter than on the ST. Although both my ST and STe are both rated at .8A, the ST has never heated up as much. I realize that the STe probably draws more power due to the extra hardware, but I have always been in the habit of leaving commonly used floppies right on top of the computer. I will probably stop to do this because of the excessive heat coming out of the left side of the machine. My 1040ST has lasted for almost 4 years without a hitch, so I hope the STe won't fry too soon. Another thing I noticed is that Flash now toggles screens EVERY time I click on the right mouse button, which of course is how it's supposed to work. On earlier versions of TOS, I sometimes have to click the right mouse button several times for it toggle. Menu bars still have the problem of appearing to lock up if the mouse if moved out of the menu too quickly. The keyboard is a bit flakey as before. It feels a little bit stiffer than the one on my 1040ST, but it still has the same problems with pressing too many keys at once. Unlike a PC keyboard, the ST cannot detect when more than 2 or 3 keys have been pressed, and when you do press a few together, it generates the wrong keystroke. Then there are the new joystick ports. They are two 15-pin connectors, like the ones used in VGA cards. According to the STe addendum, each port has enough pins to support two joysticks and a paddle, giving a total of 6 joysticks and 2 paddles for the whole machine, and as the manual says, it can even support a light pen. Once again, memories of the Atari 800 fill my eyes with tears ‹grin›. I don't know where one gets the 15 pin to 9 pin conversion cables, or how to read these new joysticks from software, but who cares. If you want a game machine, buy a Nintendo. Well, that about wraps it up. The STe at the current prices is definitely a great deal if you were planning to upgrade your existing ST. I'd recommend to anyone who currently has a 520ST or 1040ST to dump your old machines while you can still get any money for them, and buy an STe. Not only can you very possibly make a PROFIT on the deal, but you also get a blitter chip and TOS 1.6 to boot. As for buying an STe if you don't already own an ST and haven't invested a lot of money in a system, well, I wouldn't be too quick to recommend it. Regardless of what ST owners may think of PCs and Macs, there are good qualities in each. I prefer to use a PC for doing any sort of word processing or spreadsheet work, just because the PC software is still years ahead of ST software. And I've seen some amazing graphics and digital sound hardware for the Mac II, but I can't afford it. The 68000 is still my favourite chip for programming, but most people aren't programmers, and Atari's future isn't bright yet. Probably 99% of the software that runs on TOS 1.4 will run on TOS 1.6, and the possibility of a 68020 or 68030 upgrade for it sounds very appealing. This may turn out to be a very low end TT, something that most of us would be able to afford. I like the new sound chip a lot. I like the new video hardware a lot. The only question is, will future software be written specifically for the STe, or for the ST (and thus be STe compatible) or are we going to see separate versions for both? I can really only see this affecting video games in the near future, but the ability to have high quality digital sound will definitely open the door to a new type of software. Already on the Mac II, CD-ROM players are being used for some multimedia (the buzzword of the 90's) products. If Atari ever decides to ship their silly CD-ROM player, it might even be possible to take ordinary audio CDs, load sections into the STe's memory, edit the sound samples, and play them out the audio jacks. Certainly, all of the cheap 8-bit digitizers already out for the ST will be able to play the sounds samples back at very high quality. It should even be possible to wire up a resistor network to combine the left and right channel outputs and create a CD quality analog output. Who knows, maybe the chip already does that. I also wonder how soon it will be before some of the hardware accelerators and boards like PC-Ditto II will be available for the STe. Although I haven't taken the machine apart, yet, I have heard that the chips are all different shapes and this should make it really fun for the board makers. But I can't help and wonder

what Atari really has planned, if anything (that could be asking too much of them). Is this machine just an Atari- 800-wanna-be which will be nothing more than a very advanced game machine, or is this machine only intended to take away some Amiga sales (I'm sure it is), or does Atari really plan to exploit the new features? Who will release the first 68030 board for it? Is it possible to modify an existing ST to relocate the ROMs so that TOS 1.6 can be used on any ST? Will Atari ever release docs on the STe or is it up to users to figure it out for themselves? Most of Atari's documentation has been pretty lousy so far. How soon before the 520ST and 1040ST are totally phased out? Why does the STacy, still use TOS 1.4? If Atari is planning to phase out the old STs, then the STacy certainly isn't going to help. And if the STacy is being aimed at musicians, then why didn't they include the new sound chip on it? Will the new sound and video hardware be available as an upgrade to existing STs? Since they never did come out with the blitter upgrade, I would guess not, unless a third party does it. Well, I'm sure these questions will all be answered soon enough whenever the STe finally hits the U.S. market. I can finally stop complaining and get to work on the STe Xformer ‹grin›.

Why I Traded my Trusty Atari 800XL in for a New ST. By Douglas Skrecky

About 5 years ago when Santa left an Atari 800XL under the christmas tree the alternatives were the TRS80 from Radioshack, The Timex Sinclair computer, the Mattel Aquarius, the Coleco Adam, the TI994a, the Vic20, the Commodore 64 and the Apple and IBM offerings. Apple and IBM were far too expensive, the Timex Sinclair and Mattel Aquarius were for Mickey Mouse fans, the Coleco Adam didn't work, the TI994a had little software, the Vic20 and TRS80 had horrible screen images. This left just the Commodore 64 and the Atari 800XL to consider. After considering the superior screen image of the Atari as well as the lack of software for the Commodore 64 at that time Santa had only one choice to make. I wrote the manuscript for a book on my Atari 800XL, or at least I tried to. Now don't get me wrong - ANY wordprocessor- even a 40 column one is to be greatly prefered over ANY typewriter, no matter how expensive it is. Without my Atari 800XL I would never have even attempted any major literary production, much less finish a rough draft. If Santa Claus had left a goldplated typewriter under the christmas tree a while back, it would still be gathering dust. As it happened an Atari 800XL was found under the tree and it has seen a lot of use over the years. In addition to wordprocessing the darn thing infected its owner with Pacmania. Few things seem as enjoyable after a hard day at the office as coming home and then blasting the heck out of a bunch of aliens. Perhaps if more people vented their frustrations on innocuous video games there would fewer ulcers and much less alcohol and drug abuse. I can still recall the day my boss showed up for work with his tie askew, hair mussed up and with the complexion of a dead turkey. You could sort of tell that he never played video games. ...Time passed, prices decreased, Atari came out with the ST line, Commodore with its Amiga, Apple with the Macintosh, Radio Shack switched to IBM clones, IBM switched to Radio Shack clones, while Sinclair and Coleco went bankrupt. Now in 1990 for those on a limited budget the choices are the Amiga 500, the Atari 520STFM and non-IBM IBM XT clones. Recently the 520STFM has been selling for little more than the price of some of the newer video game machines. How could a cheapskate like myself choose anything other than a ST? The Atari color monitor may at first seem expensive, but not when you compare it with the competition. The Commodore 1084 sucks up more greenbacks yet has a less sharp screen image, while down in Radio Shack land the RGB11 is even more pricey than the Commodore offering. Radio Shack also sells the CM5 RGB at a good price, but the quality is little better than a TV- forget 80 column wordprocessing on this baby. I'm looking forward to more 80 column wordprocessing. I'm looking forward to having an entire chapter in memory at the same time. (Instead of having to split chapters into several files so that a single file could fit into the available memory.) I'm looking forward to playing mind blowing ST games. I'm going to learn Modula-2 and C to see if programing might be an enjoyable career change. Most of all I'm looking forward to the unknown. Who knows what feats computers will soon be capable of? One chess program called Deep Thought running on a couple of work stations recently beat International chess Grandmaster David Levy 4-0. Even Kasparov who is the current world chess champion must wonder how much longer he will retain that title.

Todd-bits Copyright (c)1990 by Todd Johnson

Every month as newsletter deadline draws near, I keep thinking that there are little bits of newsworthy items that I pick up from GEnie or magazines or even gossip, that others would be interested in hearing. Now that I'm actually at the desk writing such a column I'm having trouble thinking of any. I suspect they'll come as I type.

Off the top of my head, I'd say the biggest news, and that held in the highest regard by me personally, is that there is a Linotronic imagesetter sitting in Laser's Edge service bureau that is connected to an Atari Mega-4 computer and is running Calamus desktop publishing software to offer high grade, high resolution typesetting and page layout services to their customers who might also be using Calamus. This is the first such occurance in North America! I consider it rather exciting that Ron Grant, a local Atari fanatic and Atari computer salesman, got this situation organised and installed in Vancouver before anyone else did on the rest of our continent. Take a bow Ron. (You might also be interested to know that Ron is a fellow Vantari member.)

What this means to the average Atari ST user is that they can compose pages using Calamus at home and have Laser's Edge take their resulting file and print it on their Linotronic laser imagesetter/printer (worth a modest $75,000 or so) at a resolution of 1270 dots per inch or even higher if you're a stickler for quality. If you have no idea how such a printout would look, grab any glossy magazine and look at a page of text. Chances are they used a similar machine to print the master for that page. I don't know off-hand what Laser's Edge are charging for a page of output but I expect it to be in the $10/page price range as is normal for that type of service. For more info, give them a call at (604)662-3774. Their address is Suite 830, 789 West Pender, Vancouver. They also have modem and Fax lines available for submissions and proofing.

That service was made possible by a cooperative effort from Sound Solutions (the corporate sales division of A&B Sound), Atari Canada Corporation and Laser's Edge.

Atari Corp. News: Rumour also has it that Atari Canada has made some internal personell changes. Ian Kennedy has resigned and Geoff Earle (former National Sales Manager) has taken his place as National Manager. Also Murray Brown has accepted a position with Atari Canada. He is now an employee and therefore a direct link to the top.

Sound Tools for the Atari ST: I work at a recording studio as an engineer. One of the tools we have is a Mac IIcx computer running a software / hardware combination called Sound Tools. DigiDesign, a California high-tech digital music software developer, have combined their digital sound editting software with a special co-processor chip based expansion board to give us the ability to record 2 tracks of CD quality sound directly onto a hard drive (at a storage consumtion rate of 10 megabytes per MINUTE of sound!) Our studio (Gotham City Recording) has a 105 meg drive connected allowing us to store about 10 minutes or approximately two songs. Naturally storing the songs on the hard drive is no big deal. What makes this package exciting is the wonderfully effortless manner in which we can manipulate the data stored on the hard drive. We can virtually do ANY style of cut/paste editting (such as that offered by word processors) to the song itself. We can rearrange verses, copy choruses to the end of a song for a special "dance mix". Digitally equalise the song or just a tiny portion of it. To list all the capabilities is beyond the scope of this article really but the point is that it is all available shortly for the Atari ST.

Long & McQuade music in Vancouver, who is already one of the Atari dealers for the music industry, is planning to carry the Sound Tools package. They don't have a price on it yet but

"I" expect it be approximately $6,000.00 - 10,000.00 or so which includes an Atari Mega computer, a fairly sizeable hard drive, and all the required hardware boxes, connectors and software. If this sounds like a lot of money, it really isn't considering the capabilities that a recording studio will have once this is installed.

PageStream 1.8 and Ultrascript: I received my update to PageStream about a month ago and I haven't had time to really check out it's new features and improvements. I did play with it for day conjuring some logotype vector graphics for a friend's company. What I discovered is that the software, while incredibly powerful - even when compared to MacIntosh DTP packages, is still not as solid (ie:bug free) as I'd like to see it. Zooming in on graphic objects distorts the image so that you really don't know what to expect on your page until it actally prints. If you have PageStream 1.8, try this: Draw a box about 3 inches square; draw a horizontal line within that box; with that horizontal line still selected go to the 'line style' menu selection and change the line thickness to 100 points. Now look at your little picture in various zoom levels and see how the proportions of the objects change drastically from 'full page' view to 200% view. I might also add that Ultrascript is an incredible enhancement to PageStream. If you want excellent typographic quality from PageStream, don't even hesitate to purchase Ultrascript. They are a match made in heaven.

Enough for one month. Hopefully I'll be back next month with more.

Have you moved?

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Don't miss a single issue of the Vantari Newsletter.

The Basics of MIDI.

Understanding MIDI and it's capabilities (and limitations) is the first step in mastering the new technology available to today's musician. MIDI instruments and devices have been available for a few years now; however, many of todays musicians are not taking full advantage of the potential in MIDI devices. Some argue that they are maintaining the purity of the music by only using "Real" instruments. While others are just plain scared of the new technology and afraid that they need a technical degree to operate the MIDI devices. Unfortunately these people will (and are) left behind while others are making use of the technology available to produce quality music at an extremely low cost. So the question today is, "Are you going to use MIDI to enhance your creative endeavors?" This article is the first in a series that will shed some light on what MIDI really is and how you as a musician can make use of it.

MIDI is an acronym that stands for Musical Instrument Digital Interface. It is a language that was created to facilitate the transfer of information between different electronic instruments. One way of looking at a MIDI connection is to think of the MIDI cable as a phone line between two instruments, and the MIDI information that is passed over this line as the Language that the instruments are using.

To fully understand MIDI and how we can use it to create music, we must first learn the language of MIDI. For without understanding how our instruments are communicating with each other how can we use the technology to its full potential. Like our own language MIDI is composed of words; however, unlike our language MIDI does not use air as its medium, instead it uses electrical pulses across wires to transmit these words.

MIDI uses a language that is based on a binary system, which means that only two values are used to represent words. To picture this further, imagine our language only having two letters and reading a sentence like: Abaabbaa bbbbbaab aabbbaba. A little hard to swallow isn't it. When we represent MIDI words on paper we usually represent them using the two digits 1 and 0. So the above two letter sentence would look like this: 10110011 00000110 11000101. The way this would transmit over an electrical circuit would be 1=yes or on and 0=no or off.

So you may be wondering, how can we communicate with only two different values? With all of the different information needed to operated MIDI devices how can we communicate this with only an off and on signal? We have two values; therefore, when we use on digit to represent a statement we can only have two distinct values, 1 and 0. However, if we use a two digit statement we can have four distinct values. Examine the following: 00=0, 01=1, 10=2, 11=3. There are four different combinations that can be represented with a two digit word using a binary counting system. When we use MIDI to communicate between two MIDI devices we are using a system with eight digit binary words. Each eight digit word can give us any one of two hundred and fifty six different values.

Each digit is called a Bit, while each eight Bit (digit) word is called a Byte (pronounced Bite). (All of this should be familiar to any computer enthusiasts reading this) So we can say that MIDI is an 8-bit binary language.

Each of the 256 possible Byte's are assigned a particular command which has been standardized across the industry to give us the MIDI language. Next month I will discuss some of the basic MIDI command words and how they are implemented. Before I let you go this month I would like to leave you with some MIDI tidbits.

MIDI is transmitted via a low level signal, .5 milliamps to be precise. Because this is such a low level signal MIDI information is very vulnerable to line noise and electronic interference. To solve this problem the industry has developed a system of OPTO isolation. In each MIDI interface there is an optical isolation circuit that allows the signal to be transmitted without actual electrical contact. The MIDI information that is sent over the MIDI cables powers a small light source which pulses according to the signal that is being feed into it. An optical sensor reads this information and sends it on to the microprocessor to be used and passed on. This way, when we connect different devices together using a MIDI interface, no actual electrical connection is made. Saving us and our equipment from hazardous voltage spikes and power surges, as well as ensuring that the information is free of noise and bugs.

Stay tuned for next month as we explore: Status Bytes, DATA Bytes and some basic MIDI commands.

For further reading on MIDI see The Midi Book by Ferro Technologies, Distributed by Hal Leonard Books and available at most Music Stores.

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